

## 2018 Current Fiscal Year Report: Basic Energy Sciences Advisory Committee

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### 1. Department or Agency

Department of Energy

### 2. Fiscal Year

2018

### 3. Committee or Subcommittee

Basic Energy Sciences Advisory Committee

### 3b. GSA Committee No.

133

### 4. Is this New During Fiscal Year?

No

### 5. Current Charter

07/28/2017

### 6. Expected Renewal Date

07/28/2019

### 7. Expected Term Date

### 8a. Was Terminated During Fiscal Year?

No

### 8b. Specific Termination Authority

AGEN

### 8c. Actual Term Date

### 9. Agency Recommendation for Next Fiscal Year

Continue

### 10a. Legislation Req to Terminate?

No

### 10b. Legislation Pending?

Not Applicable

### 11. Establishment Authority

Agency Authority

### 12. Specific Establishment Authority

AGEN

### 13. Effective Date

09/04/1986

### 14. Committee Type

Continuing

### 14c. Presidential?

No

### 15. Description of Committee

Scientific Technical Program Advisory Board

### 16a. Total Number of Reports

1

### 16b. Report Date

06/30/2018

### Report Title

BES at 40: A REMARKABLE RETURN ON INVESTMENT IN FUNDAMENTAL RESEARCH

### Number of Committee Reports Listed: 1

17a. Open 2 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 2

### Meetings and Dates

Purpose	Start	End
Purpose of the March 2018 meeting was to discuss any news from the Office of Basic Energy Sciences, an update from the Office of High Energy Physics on Quantum Information Science, a Quantum Information Systems Panel Discussion, notification of the upcoming Committee of Visitors for the Materials, Sciences and Engineering Division, update on the Chemical Sciences, Geosciences and Biosciences Division Strategic Planning Process, the Ultrafast Roundtable Report Update, discussion on the BES 40th Subcommittee Report: Stories and Recommendations and News for the Office of the Under Secretary for Science.	03/22/2018	03/23/2018
The purpose of the July BESAC Meeting was to present and discuss the Basic Energy Sciences Program at 40 years; to discuss light source upgrades and the international landscape; discuss neutron source upgrades and the international landscape, present the Materials Sciences & Engineering Division Committee of Visitors report, an introduction to the upcoming Basic Research Needs Workshop on Microelectronics; an presentation on the DOE Isotope Program and an Interagency Discussion on Quantum Information Science.	07/12/2018	07/13/2018

**Number of Committee Meetings Listed: 2**

	<b>Current FY</b>	<b>Next FY</b>
<b>18a(1). Personnel Pmts to Non-Federal Members</b>	\$0.00	\$0.00
<b>18a(2). Personnel Pmts to Federal Members</b>	\$0.00	\$0.00
<b>18a(3). Personnel Pmts to Federal Staff</b>	\$76,882.00	\$86,000.00
<b>18a(4). Personnel Pmts to Non-Member Consultants</b>	\$0.00	\$0.00
<b>18b(1). Travel and Per Diem to Non-Federal Members</b>	\$100,755.00	\$150,000.00
<b>18b(2). Travel and Per Diem to Federal Members</b>	\$0.00	\$0.00
<b>18b(3). Travel and Per Diem to Federal Staff</b>	\$0.00	\$0.00
<b>18b(4). Travel and Per Diem to Non-member Consultants</b>	\$0.00	\$0.00
<b>18c. Other(rents,user charges, graphics, printing, mail, etc.)</b>	\$98,930.00	\$105,000.00
<b>18d. Total</b>	\$276,567.00	\$341,000.00
<b>19. Federal Staff Support Years (FTE)</b>	0.50	0.50

**20a. How does the Committee accomplish its purpose?**

The Committee accomplishes its goals through panels convened by the Chair on specific topics and through meetings of the whole Committee. The Committee provides valuable, independent advice to the Department on the Basic Energy Sciences program on complex scientific and technical issues that arise in the planning, management, and implementation of the program, including advice on the strategic long-term planning necessary for establishing research and facilities priorities, determining proper program balance, and identifying the appropriate vehicles for interlaboratory collaboration and industrial participation.

**20b. How does the Committee balance its membership?**

The Committee includes representatives from the national laboratories, industry, universities, and other federal agencies involved in energy-related scientific research. Particular attention was paid to obtaining diversity and a balance of disciplines, interests, experiences, points of view, and geography.

**20c. How frequent and relevant are the Committee Meetings?**

Full Committee met two times in FY 2018. The agenda of the meetings relate specifically to programs and facilities managed by the Office of Basic Energy Sciences. A COV for the Materials Sciences and Engineering Division was conducted and a report was issued. A report was issued that highlighted outstanding examples of major scientific accomplishments emerging from BES support that have shaped the fields of BES research, with an eye toward learning from these examples to motivate BES investment strategies for the future. Panel Discussions on Neutron Source Upgrades & International Landscape and Neutron Source Upgrades & International Landscape were held.

**20d. Why can't the advice or information this committee provides be obtained elsewhere?**

The Office of Basic Energy Sciences is diverse and plays a significant role in the Nation's basic research effort. The scientific experience of the Committee is not available within the Department of Energy or within its existing committees. Continuance of the Committee is essential to the Department especially in determining research and facility priorities.

**20e. Why is it necessary to close and/or partially closed committee meetings?**

Not applicable.

**21. Remarks**

N/A

**Designated Federal Officer**

Harriet Kung Associate Director, Office of Basic Energy Sciences

<b>Committee Members</b>	<b>Start</b>	<b>End</b>	<b>Occupation</b>	<b>Member Designation</b>
Bonnell, Dawn	02/05/2016	12/31/2019	University of Pennsylvania	Special Government Employee (SGE) Member
Chen, Jingguang	02/01/2017	12/31/2020	Columbia University	Special Government Employee (SGE) Member
Clark, Sue	02/05/2016	12/31/2019	Pacific Northwest National Laboratory/Washington State University	Special Government Employee (SGE) Member
Cuenya, Beatriz	02/18/2011	12/31/2018	Fitz-Haber Institute of the Max Planck Society	Representative Member
Dosch, Helmut	02/01/2017	12/31/2020	DESY	Representative Member
Drell, Persis	01/29/2013	12/31/2019	Stanford University	Special Government Employee (SGE) Member
Friend, Cynthia	02/01/2017	12/31/2020	Harvard University	Special Government Employee (SGE) Member
Gao, Yan	02/01/2017	12/31/2020	General Electric Company	Special Government Employee (SGE) Member
Hammes-Schiffer, Sharon	01/07/2008	12/31/2020	Department of Chemistry, Yale University	Special Government Employee (SGE) Member
Kastner, Marc	02/01/2017	12/31/2020	Science Philanthropy Alliance	Special Government Employee (SGE) Member
Kay, Bruce	01/07/2008	12/31/2018	Chemical and Materials Division, Pacific Northwest National Laboratory	Special Government Employee (SGE) Member
Leone, Stephen	02/05/2016	12/31/2019	University of California, Berkeley/Lawrence Berkeley National Lab	Special Government Employee (SGE) Member
Louca, Despina	02/01/2017	12/31/2020	University of Virginia	Special Government Employee (SGE) Member
Olivera de la Cruz, Monica	01/29/2013	12/31/2018	Northwestern University	Special Government Employee (SGE) Member
Ourmazd, Abbas	02/01/2017	12/31/2020	University of Wisconsin-Milwaukee	Special Government Employee (SGE) Member
Piot, Philippe	02/05/2016	12/31/2019	Northern Illinois University	Special Government Employee (SGE) Member
Robertson, Ian	02/01/2017	12/31/2020	University of Wisconsin, Madison	Special Government Employee (SGE) Member

Rollett, Anthony	01/29/2013	12/31/2020	Carnegie Mellon University	Special Government Employee (SGE) Member
Ross, Frances	02/05/2016	12/31/2019	IBM	Special Government Employee (SGE) Member
Rubloff, Gary	01/28/2013	12/31/2018	University of Maryland	Special Government Employee (SGE) Member
Santore, Maria	01/28/2013	12/31/2020	University of Massachusetts	Special Government Employee (SGE) Member
Takeuchi, Esther	02/05/2016	12/31/2019	Stony Brook University	Special Government Employee (SGE) Member
Tranquada, John	01/07/2008	12/31/2018	Materials Science Department, Brookhaven National Laboratory	Special Government Employee (SGE) Member
Wasserman, Stephen	02/01/2017	12/31/2020	Independent Consultant	Special Government Employee (SGE) Member

**Number of Committee Members Listed: 24**

### Narrative Description

The Basic Energy Sciences Advisory Committee (BESAC), established on September 4, 1986, provides valuable, independent advice to the Department of Energy on the Basic Energy Sciences program regarding the complex scientific and technical issues that arise in the planning, management, and implementation of the program. BESAC's recommendations include advice on establishing research and facilities priorities; determining proper program balance among disciplines; and identifying opportunities for interlaboratory collaboration, program integration, and industrial participation. The Committee primarily includes representatives of universities, national laboratories, and industries involved in energy-related scientific research. Particular attention is paid to obtaining a diverse membership with a balance of disciplines, interests, experiences, points of view, and geography.

### What are the most significant program outcomes associated with this committee?

Checked if Applies

Improvements to health or safety	<input checked="" type="checkbox"/>
Trust in government	<input checked="" type="checkbox"/>
Major policy changes	<input checked="" type="checkbox"/>
Advance in scientific research	<input checked="" type="checkbox"/>
Effective grant making	<input type="checkbox"/>
Improved service delivery	<input type="checkbox"/>
Increased customer satisfaction	<input type="checkbox"/>
Implementation of laws or regulatory requirements	<input type="checkbox"/>
Other	<input type="checkbox"/>

### Outcome Comments

NA

**What are the cost savings associated with this committee?**

Checked if Applies

None	<input type="checkbox"/>
Unable to Determine	<input checked="" type="checkbox"/>
Under \$100,000	<input type="checkbox"/>
\$100,000 - \$500,000	<input type="checkbox"/>
\$500,001 - \$1,000,000	<input type="checkbox"/>
\$1,000,001 - \$5,000,000	<input type="checkbox"/>
\$5,000,001 - \$10,000,000	<input type="checkbox"/>
Over \$10,000,000	<input type="checkbox"/>
Cost Savings Other	<input type="checkbox"/>

**Cost Savings Comments**

NA

**What is the approximate Number of recommendations produced by this committee for the life of the committee?**

603

**Number of Recommendations Comments**

Since September, 1986, 83 reports have been issued covering all aspects of user facilities, research, planning, and program management for the Office of Basic Energy Sciences. These reports contain more than 603 separate and distinct recommendations with individual reports as few as five and as many as fifty recommendations. The recommendations of the Committee vary from well-defined scientific recommendations to extremely general programmatic recommendations.

**What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?**

80%

**% of Recommendations Fully Implemented Comments**

All separate and distinct recommendations have been evaluated and considered and an estimated 80% or more have been implemented. It should be noted that some recommendations are either financially or administratively impractical or impossible to fully implement.

**What is the approximate Percentage of these recommendations that have been or**

**will be Partially implemented by the agency?**

20%

**% of Recommendations Partially Implemented Comments**

An attempt is always made to at least partially implement those recommendations that are not or cannot be fully implemented. A small fraction, estimated at 5% or less, of individual recommendations are not implemented. As noted above, some recommendations are either financially or administratively impractical or impossible to fully implement.

**Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?**

Yes ☒ No ☐ Not Applicable ☐

**Agency Feedback Comments**

The Department provides BESAC and the scientific community feedback during the Full Committee Meetings and through its program management activities. As budgets and priorities permit, many recommendations are implemented into the planning and core research efforts in the program and are made visible to those in the scientific community. For Committee and Subcommittee activities, the Director of Science and/or the Associate Director of Science for Basic Energy Sciences informs the Committee on how their recommendations were considered and implemented into the core program. This typically occurs during the Full Committee Meeting following receipt of the letter and report from the BESAC Chair to the Director, Office of Science describing the activity and recommendations.

**What other actions has the agency taken as a result of the committee's advice or recommendation?**

Checked if Applies

Reorganized Priorities	<input checked="" type="checkbox"/>
Reallocated resources	<input checked="" type="checkbox"/>
Issued new regulation	<input type="checkbox"/>
Proposed legislation	<input type="checkbox"/>
Approved grants or other payments	<input type="checkbox"/>
Other	<input type="checkbox"/>

**Action Comments**

NA

**Is the Committee engaged in the review of applications for grants?**

No

**Grant Review Comments**

NA

**How is access provided to the information for the Committee's documentation?**

Checked if Applies

Contact DFO



Online Agency Web Site



Online Committee Web Site



Online GSA FACA Web Site



Publications



Other



**Access Comments**

N/A